

IN THE CLAIMS:

1. (currently amended) A method of performing a clean check on a gearbox after final assembly, said method comprising the steps of:

(a) filtering an oil-based fluid in a preliminary filter;

(b) weighing a primary filter;

(a)-(c) flushing an said oil-based fluid through said gearbox and then through a-said primary filter;

(b)-(d) weighing said primary filter to determine the weight of contaminants collected in said primary filter; and

(e)-(e) comparing said contaminant weight to a predetermined level, wherein said gearbox is acceptable for use if said contaminant weight is below said predetermined level; and

(f) repeating steps (a)-(e) if said contaminant weight is above said predetermined level.

2. (currently amended) The method of claim 1 further comprising the step of soaking said primary filter in a solvent prior to said step of weighing said primary filter.

3. (currently amended) The method of claim 2 wherein said step of soaking said primary filter in a solvent includes soaking said primary filter for about 30 minutes or more.

4. (currently amended) The method of claim 1 further comprising the steps of soaking said primary filter in a first solvent and then soaking said primary filter in a second solvent prior to said step of weighing said primary filter.

5. (original) The method of claim 4 wherein said first solvent is mineral spirits and said second solvent is isopropyl alcohol.

6. (canceled)

7. (currently amended) The method of claim 1 wherein said primary filter is a 3 micron collection filter.

8. (original) The method of claim 1 wherein said oil-based fluid is MIL-L-23699 oil.

9. (currently amended) The method of claim 1 wherein said step of flushing an oil-based fluid through said gearbox and then said primary filter includes flushing about 50 gallons of said oil-based fluid through said gearbox at about 40 pounds per square inch.

10. (canceled)

11. (original) The method of claim 1 wherein said gearbox is a finally assembled, closed gearbox.

12. (original) A method of performing a clean check on a finally assembled, closed gearbox, said method comprising the steps of:

(a) flushing an oil-based fluid through said gearbox and then through a first filter;

(b) soaking said first filter in a solvent;

(c) passing said solvent through a second filter;

(d) weighing said first and second filters to determine the weight of contaminants collected therein; and

(e) comparing said contaminant weight to a predetermined level, wherein said gearbox is acceptable if said contaminant weight is below said predetermined level.

13. (original) The method of claim 12 wherein said step of soaking said first filter in a solvent includes soaking said first filter for about 30 minutes or more.

14. (original) The method of claim 12 further comprising the steps of:

soaking said first filter in a second solvent, subsequently to said step of soaking said first filter in said first-mentioned solvent; and

passing said second solvent through said second filter.

15. (original) The method of claim 14 wherein said first-mentioned solvent is mineral spirits and said second solvent is isopropyl alcohol.

16. (original) The method of claim 12 wherein said first and second filters are 3 micron collection filters.

17. (original) The method of claim 12 wherein said oil-based fluid is MIL-L-23699 oil.

18. (original) The method of claim 12 wherein said step of flushing an oil-based fluid through said gearbox and then said first filter includes flushing about 50 gallons of said oil-based fluid through said gearbox at about 40 pounds per square inch.

19. (previously presented) The method of claim 12 further comprising the step of flushing said oil-based fluid through a preliminary filter prior to flushing said oil-based fluid through said gearbox.

20. (original) The method of claim 12 wherein steps (a)-(e) are repeated if said contaminant weight is above said predetermined level.

21. (currently amended) A system for performing a clean check on a gearbox having an inlet and an outlet, said system comprising:

a source of an oil-based fluid fluidly connected to said gearbox inlet;

a first filter fluidly connected to said gearbox outlet;

a preliminary filter fluidly connected between said source of an oil-based fluid and said gearbox inlet;

means for causing said oil-based fluid to flow through said gearbox, said preliminary filter, and said first filter; ~~and~~

means for soaking said first filter in a solvent;

means for determining the weight of contaminants filtered in said first filter during said check run; and

means to compare the weight of contaminants filtered against a predetermined level to determine if said gearbox is adequately clean for use after final assembly.

22. (previously presented) The system of claim 21 wherein said means for causing said oil-based fluid to flow through said gearbox and said first filter is a pump.

23. (previously presented) The system of claim 21 wherein said first filter is a 3 micron collection filter.

24. (original) The system of claim 21 wherein said oil-based fluid is MIL-L-23699 oil.

25. (canceled)

26. (previously presented) The system of claim 21 wherein said solvent is mineral spirits.

27. (previously presented) The system of claim 21 wherein said solvent is isopropyl alcohol.

28. (previously presented) The system of claim 21 further comprising a second filter for passing said solvent through.

29. (canceled)

30. (previously presented) The system of claim 21 wherein said preliminary filter is a 3 micron collection filter.

31. (original) The system of claim 28 wherein said second filter is a 3 micron collection filter.